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DOCKET NO. D-2015-017 CP-2

DELAWARE RIVER BASIN COMMISSION

Special Protection Waters

**Pennsylvania Department of Conservation & Natural Resources
Surface Water Withdrawal**

Durham, Tinicum and Solebury Townships, Bucks County, Pennsylvania

PROCEEDINGS

This docket is issued in response to an Application submitted by Pennsylvania Department of Conservation & Natural Resources (PADCNR) to the Delaware River Basin Commission (DRBC or Commission) on January 11, 2017 (Application) for approval of an increased allocation of surface water and review of a surface water withdrawal project. This docket was previously approved by the Commission on March 16, 2016.

The Application was reviewed for inclusion in the Comprehensive Plan and for approval under Section 3.8 of the *Delaware River Basin Compact*. The Bucks County Planning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on November 15, 2017.

A. DESCRIPTION

1. Purpose. The purpose of this project is to approve proposed surface water intakes located at Marshal Island and Bowman's Hill and to approve an increase in surface water withdrawal from 3.565 mgm to up to 45.0 mgm (to supplement water into the Delaware Canal) from two existing surface water intakes on the Delaware River at Durham and Centre Bridge and the two proposed intakes (Marshal Island and Bowman's Hill). The surface water intake at Centre Bridge is the only one used on a regular basis, the other three (3) intakes will be used only during maintenance to the canal or when the Easton and New Hope inlets are not available. The increase in allocation is due to an inaccurate estimation of water use by the PADCNR in their previous application submittal. The requested allocation reflects the amount of water that has been withdrawn on a daily basis for the past 20 years. The water will be used to augment flow in the Delaware Canal. This docket also continues the approval of a separate request by PADCNR to implement a Temporary Pilot Program to utilize up to 3.0 million gallons per day (mgd) of

water from the Point Pleasant Pump Station to establish and maintain flow in the canal below the Point Pleasant Pump Station.

2. **Location.** The project's PADCNR intakes are located in the Delaware River Watershed, within the drainage area to the Lower Delaware Special Protection Waters, in Durham, Tinicum and Solebury Townships, Bucks County, Pennsylvania. The Delaware River near the project site is designated by the Pennsylvania Department of Environmental Protection (PADEP) as Warm Water Fishes (WWF) and Migratory Fishes (MF). The Point Pleasant Pump Station withdraws water from the Delaware River and is also located within the drainage area to the Lower Delaware Special Protection Waters in Plumstead Township, Bucks County, Pennsylvania.

Specific intake location information has been withheld for security reasons.

3. **Area Served.** The water withdrawals from the two (2) existing and two (2) proposed surface water intakes on the Delaware River are only used to supplement water to the Delaware Canal. The existing Point Pleasant Pump Station withdraws water from the Delaware River for the purposes of public water supply and to provide non-contact cooling water to the Exelon Generation Company, LLC's Limerick Generating Station. During the Temporary Pilot Program, up to 3.0 mgd of water will be transferred from the wet well of the Point Pleasant Pump Station to supplement water to the PA Delaware Canal.

4. **Physical features.**

a. **Design criteria.** The docket holder currently has two (2) surface water intakes located at Centre Bridge and in Durham and two (2) proposed pumps are to be installed at Marshal Island and Bowman's Hill to supplement additional water in the canal. The proposed surface water intakes are being constructed in strategic locations along the river in the event that certain sections of the canal need additional water, due to maintenance, problems with the feeder canals, etc.

The average and maximum demand is 1.44 mgd and 6.48 mgd, respectively. The docket holder does not estimate an increase in average and maximum demand over the next ten years. The allocation of 45.0 mgm should be sufficient to meet the future demands of the PADCNR.

During the Temporary Pilot Program, up to 3.0 mgd of water will be transferred from the wet well of the Point Pleasant Pump Station (Pump Station) to supplement water to the canal. The program will utilize equipment already in use at the Pump Station, as described below in the Finding Section. The program will last for six (6) months and can be extended for up to an additional 6 months with Executive Director written approval. Any continuation of the program will require a Commission approved modification to the Forest Park Water Authority (FPWA) Docket No. D-1965-076 CP-8 and to this docket. The 3.0 mgd will be within the existing allocation approved in Docket No. D-1965-076 CP-8.

b. **Facilities.** The existing project intakes have the following characteristics:

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY (MGD)	7Q10 FLOW AT INTAKE (CFS/ MGD)	YEAR CONSTRUCTED
Centre Bridge	Delaware River	1.44	1,280/ 827	1985
Durham	Delaware River	6.48	1,250/ 808	1985
Marshal Island (proposed)	Delaware River	5.76	1,230/ 662	Construction not complete
Bowman's Hill (proposed)	Delaware River	5.76	1,290/ 694	Construction not complete

c. **Relationship to the Comprehensive Plan.** The project was previously included in the Comprehensive Plan by the Commission in Docket No. D-2015-017 CP-1, approved on March 16, 2016. Issuance of this docket will continue the withdrawal project in the Comprehensive Plan.

B. **FINDINGS**

The PADCNR currently has existing pumps located at Centre Bridge and in Durham Township and plan to add surface water intakes at Marshal Island and Bowman's Hill, all in Bucks County, Pennsylvania. The purpose of these pumps is to provide water to the downstream sections of the canal when there are problems preventing water from flowing from the feeder channel located in Easton, Pennsylvania that diverts water into the canal utilizing a dam on the Lehigh River. These pumps are submersible pumps placed in the Delaware River with water lines that lead to the canal.

The Centre Bridge pump is the only pump that will operate on a constant basis; it operates at approximately 1,000 gpm. The other three (3) pumps will only run on a temporary basis and will be used as back up water sources during maintenance of the Centre Bridge pump, repair work along the canal and at other times when water is unavailable from the docket holder's main sources at the inlets in Easton and New Hope. It will be highly unlikely that all four (4) pumps will be in operation at the same time, which will minimize the amount of water that will be withdrawn.

With a change in personnel at the PADCNR, the new park manager of the Delaware Canal State Park reassessed how much water is being pumped from the Delaware River from their two existing pumps. It was realized that the pumping rate at the Centre Bridge intake estimated by the previous personnel was grossly inaccurate. Using the pump rating curve along with the known pump capacity of the Centre Bridge intake and based on the elevation the pump needs to lift water into the canal, it was determined by PADCNR that the Centre Bridge intake is operating at approximately 1,000 gpm (1.44 mgd) as opposed to the original estimation of 35 gpm (0.050 mgd).

Withdrawal Metering

Centre Bridge and Durham pumping is metered by means of pump capacity rating curves and time of operation. The proposed Marshal Island and Bowman's Hill pump withdrawals will be similarly metered. Records of the pumping capacity, elapsed hours of operation, and the calculated withdrawal of each pump on each day of operation shall be maintained by the docket holder. The calculated withdrawal shall be reported to the PADEP in accordance with Conditions C.II.a. and C.II.g.

Temporary Pilot Project Pumping Program

The Temporary Pilot Program will demonstrate the cost and feasibility of pumping water from the Point Pleasant Pump Station to the canal in the vicinity of Plumstead Township, Bucks County, Pennsylvania. The docket holder shall conduct the Temporary Pilot Program as described in a letter, dated January 6, 2016, that supplemented its August 12, 2015 application and as required by Condition C.II.e. of this docket.

Water will be withdrawn from the Delaware River via the Point Pleasant Pump Station and then discharged via an existing yard hydrant on the property of the Point Pleasant Pump Station into the canal adjacent to the pump station property via an existing storm water drain. The water will be fed directly from the pump discharge manifold inside the station. Approximately 20 feet of hose or piping will be installed between the hydrant and the existing storm water drain. The water will be conveyed from the storm water drain through an existing buried pipe which discharges into a rip-rapped swale feeding directly into the canal. Approximately 3.0 mgd will be pumped from the Point Pleasant Pump Station to re-establish and maintain flow in the canal. The program is approved for up to six (6) months. The Executive Director may extend the Temporary Pilot Program for up to an additional six (6) months upon a written request from the docket holder. The 3.0 mgd will be within the existing allocation approved in Docket No. D-1965-076 CP-8.

Surface Water Intakes at Marshal Island and Bowman's Hill

The docket holder has proposed to put two additional surface water intakes, Marshal Island and Bowman's Hill into operation. The two (2) proposed surface water intakes will only be used on an emergency temporary basis and will be used as back up water sources during maintenance of the Centre Bridge pump, repair work along the canal and at other times when water is unavailable from the docket holder's main sources at the inlets in Easton and New Hope. Prior to either of the proposed surface water intakes going into operation the docket holder shall conduct the program required by Condition C.II.f. of this docket.

Special Protection Waters

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC *Water Quality Regulations (WQR)*, designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap

National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for Special Protection Waters designation and clarity on definitions and terms were updated for the entire program.

Article 3.10.3A.2.e.1). and 2). of the *Water Quality Regulations, Administrative Manual - Part III*, states that projects subject to review under Section 3.8 of the *Compact* that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of Special Protection Waters. The intakes supplementing water supply to the PADCNR canal are located within in the drainage area to the Special Protection Waters. Since this project does not entail additional construction and expansion of facilities or service areas and there are not any new or increased non-point source loads associated with this approval, the non-point source pollution control plan requirement is not applicable at this time. Accordingly, Special Condition C.II.s. has been included in the Decision section of this docket.

The project is designed to conform to the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

The DRBC estimates that the project withdrawals, used for the purpose of supplementing the canal, result in a consumptive use of 0 percent of the total water use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

C. DECISION

I. Effective on the approval date for Docket No. D-2015-017 CP-2 below:

a. The projects described in Docket No. D-2015-017 CP-1 is removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-2015-017 CP-2; and

b. Docket No. D-2015-017 CP-1 is terminated and replaced by Docket No. D-2015-017 CP-2.

c. The project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A “Physical features” are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP. The docket holder shall register with and report to the PADEP all surface and ground water sources described in this docket in accordance with the Pennsylvania Regulations (Title 25 - Environmental Protection, [25 PA. CODE CH. 110], Water Resources Planning).

b. The surface water intakes and operational records shall be available at all times for inspection by the DRBC.

c. The surface water intakes shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

d. During any month, the combined withdrawal from all surface water intakes shall not exceed 45.0 million gallons. No intake shall be pumped above the maximum instantaneous rate and monthly allocation as indicated below:

INTAKE NO.	INSTANTANEOUS RATE (MGD)	MONTHLY ALLOCATION (MGM)
Centre Bridge	1.44	45.0
Durham	6.48	45.0
Marshal Island	5.76	Emergency Use Only
Bowman’s Hill	5.76	Emergency Use Only

e. This docket also approves the implementation of a Temporary Pilot Program to utilize up to 3.0 mgd of water from the Point Pleasant Pump Station to establish and maintain flow in the Canal below the Point Pleasant Pump Station. The program is required to demonstrate the cost and feasibility of transferring up to 3.0 mgd of water from the Point Pleasant Pump Station to fill and/or maintain a water level of 4.0 feet in the Canal between the pump station (Plumstead Township, Bucks County) and New Hope, PA. The docket holder shall conduct the Temporary Pilot Program as described in a letter submitted by the docket holder with the application dated January 6, 2016 and in accordance with the following conditions:

1. Prior to the initiation of the Temporary Pilot Program the PADCNR shall prepare and submit to the Executive Director and PADEP:

a. A written report that describes the physical condition of the Canal, with particular focus on the Canal stability, potential impacts of the

Temporary Pilot Program, and the identification of potential for major leaks, ruptures or weak spots below Point Pleasant Pump Station to New Hope, PA. The PADCNR will demonstrate that it has remediated any such potential areas prior to the initiation of the Temporary Pilot Program.

b. Documentation that it has contacted the residents and the elected officials along the Canal, in writing, advising them of the Temporary Pilot Program and responded to questions or concerns the public may have regarding the Temporary Pilot Program. The written results of this program will be provided to the Executive Director and the PADEP.

2. Prior to the initiation of the Temporary Pilot Program, the FFWA shall have received the written approval from the Executive Director to provide up to 3.0 mgd of water from the Point Pleasant Pump Station with no increase in the allocation approved in Docket No. D-1965-076 CP-8.

3. Upon the PADCNR's and the FFWA'S receipt of the written approval from the Executive Director to initiate the Temporary Pilot Program up to 3.0 mgd of water from the Point Pleasant Pump Station may be discharged into the Canal until the water level in the Canal 4.0 feet deep. Subject to the 3.0 mgd limitation, additional water may then be discharged into the Canal as necessary to maintain the water in the Canal. The Temporary Pilot Program is approved for up to six (6) months.

4. During the Temporary Pilot Program the PADCNR shall:

a. Conduct a Canal monitoring program including daily visual inspections during the Temporary Pilot Program. The visual inspection may be reduced to weekly and then monthly inspections after the water level in the Canal of 4.0 feet is achieved upon written approval from the Executive Director.

b. Continue to conduct the continuous outreach program and as necessary and to advise residents, businesses emergency responders, and elected officials along the Canal, and the FFWA, the Executive Director, PADEP of any potential or actual instability, major leaks, or blow outs, that are discovered as a result of the Canal monitoring program.

c. Direct the FFWA to immediately cease the discharge to the Canal when PADCNR becomes aware of any potential or actual instability, major leaks, or blow outs.

5. Required Reports – The docket holder shall submit to the Executive Director and PADEP a report within (3) months after initiation of Temporary Pilot Program evaluating the success of the program and the potential feasibility for a long term program. The report shall include whether the

FPWA will continue to supplement water into the Canal from the Point Pleasant Pump Station and whether or not an increase in the allocation to Point Pleasant Pump Station Docket No. D-1965-076 CP-8 for the long term Canal supplement program is required. The report shall also discuss how the long-term program will be implemented, the potential environmental impact of an increased withdrawal from the Point Pleasant Pump Station at the intakes in the Delaware River, the method and stability of the discharge to the Canal and the projected construction, operation and maintenance cost and the source of the funds.

6. The Executive Director may extend the Temporary Pilot Program up to an additional six (6) months if it is determined that the additional time is necessary to evaluate the program fully.

7. Implementation of the long-term program will require the submission to and the approval by the Commission of an application for the modification of this docket and of an application from the FPWA for the modification of the Point Pleasant Pump Station Docket No. D-1965-076 CP-8, if it will continue to be the source for the water to supplement the Canal.

f. Prior to either of the proposed surface water intakes going into operation the PADCNR shall prepare and submit to the Executive Director:

1. A written report that describes the physical condition of the Canal, with particular focus on the Canal stability, potential impacts of the Marshal Island and Bowman's Hill surface water intakes, and the identification of potential for major leaks, ruptures or weak spots below the surface water intakes to New Hope, PA. The PADCNR will demonstrate that it has remediated any such potential areas prior to the initiation of the proposed surface water intakes.
2. During the program the PADCNR shall conduct a Canal monitoring program including daily visual inspections during the start-up of the proposed intakes. The visual inspection may be reduced to weekly and then monthly inspections after the intakes have been in operation upon written approval from the Executive Director.
3. **Required Reports** – The docket holder shall submit to the Executive Director a report within (3) months after initiation of the Marshal Island and/or Bowman's Hill surface water intakes with results of the inspections in C.II.f.2. and the feasibility of the continued use of these intakes for emergency purposes.
4. After the intakes are put into operation, the docket holder is required to contact the Commission at least 3 days before the operation of the Marshal

Island or Bowman's Hill intakes and provide to the Commission an estimated duration the intake(s) will be in operation.

g. Centre Bridge and Durham pumping shall be metered by means of pump capacity rating curves and time of operation. The proposed Marshal Island and Boman's Hill pump withdrawals shall be similarly metered. Records of the pumping capacity, elapsed hours of operation, and the calculated withdrawal of each pump on each day of operation shall be maintained by the docket holder. Monthly totals shall be reported to the PADEP annually and shall be available at any time to the Commission if requested by the Executive Director.

h. Prior to commencing construction on the surface water withdrawal intakes at Marshal Island and Bowman's Hill, the docket holder shall first obtain the approval of the intake design from the Pennsylvania Fish and Boat Commission. The intake shall be designed to minimize to the greatest extent possible, impingement and entrainment impacts to aquatic wildlife in the vicinity of the withdrawal sites. The docket holder shall provide the Commission with a copy of the intake designs, and shall provide the Commission with copies of all correspondence between the docket holder and the Pennsylvania Fish and Boat Commission.

i. Each new water service connection shall include a water meter in accordance with the DRBC's Resolution No. 87-7 (Revised).

j. The docket holder shall implement to the satisfaction of the PADEP, the continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the PADEP on the actions taken pursuant to this program and the impact of those actions as requested by the PADEP.

k. The docket holder shall implement to the satisfaction of the PADEP, a drought or other water supply emergency plan.

l. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

m. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

n. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 CFR 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the

terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

o. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations. (see 18 CFR 401.43).

p. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

q. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

r. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder in order to insure the proper control, use and management of the water resources of the Basin.

s. If the monitoring required herein or any other relevant data or information demonstrates that the operation of this project is interfering with or otherwise impairing existing uses of ground or surface water, or if the permit holder receives a complaint from an existing ground or surface water user within the zone of influence of the withdrawal alleging such interference or impairment, the permit holder shall immediately notify the Executive Director, and unless excused by the Executive Director, shall investigate the demonstrated or alleged impacts. For purposes of this condition, notification shall mean either (a) electronic transmittal of written notice to the Executive Director via email (using addresses posted on the DRBC website); or (b) written notice to the Executive Director and a telephone call to the Project Review Section at 609-883-9500, ext. 216. (Oral notification must always be accompanied by immediate written notification directed to the Executive Director.) In addition, the permit holder shall provide written notice to all potentially affected water users of the permit holder's responsibilities under this condition. **Any well or surface water supply that is impaired as a result of the permit holder's project withdrawal shall be repaired, replaced or mitigated at the permit holder's expense.** The scope of the options to consider for repair, replacement and/or mitigation shall not be limited solely to those that are owned, operated, or controlled by the project sponsor. An investigation report and/or mitigation plan prepared and certified by a licensed professional engineer and/or a licensed professional geologist shall be submitted to the Executive Director as soon as practicable following notice of the demonstrated or alleged impairment consistent with this paragraph. The Executive Director shall make the final determination regarding the scope and sufficiency of the investigation and the extent of any mitigation measures that may be required. Where ground and surface waters are rendered unavailable, unusable, or unsuitable for the pre-existing use, the Executive Director may direct

the permit holder to take interim actions to mitigate such impacts, pending completion of the investigative report and any long-term repair, replacement or mitigation.

t. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

u. Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

v. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE:

EXPIRATION DATE: September 13, 2027